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ABSTRACT

This data brief summarizes the employment patterns of women and minority (Blacks, Hispanics, and American Indians) scientists and engineers in the public and private sectors according to level of education. Among scientists and engineers with bachelor's degrees, underrepresented minorities were least likely to be employed in a private for profit company in 1993 compared with their representation in the general population. Underrepresented minorities with bachelor's degrees in science and engineering were the most likely of any group to be employed in government while women were less likely to be employed in government. Among scientists and engineers who held doctoral degrees, higher percentages of women and underrepresented minorities were employed in universities or 4-year colleges than any other demographic group in 1993. Asian doctoral scientists and engineers were more likely to be employed in the private, for-profit sector than all other groups. Of scientists and engineers with doctoral degrees, less than 13% of women and approximately 17% of underrepresented minorities were computer/math scientists or engineers. (PVD)

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DATA BRIEF

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Women and Underrepresented Minority Scientists and Engineers Have Lower Levels of Employment in Business and Industry

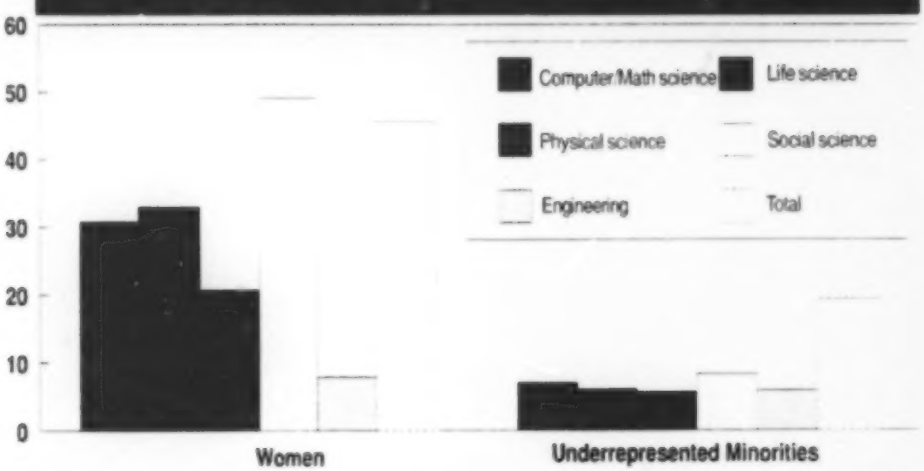
by Abiola C. Davis

Women and underrepresented minorities were more highly represented in the social sciences than in other disciplines in 1993.

More than 3.2 million persons were employed in science and engineering (S&E) fields in 1993. Almost three quarters of a million were women. Just under 500,000 were members of minority racial or ethnic groups and 200,000 were "underrepresented minorities."[1] Approximately 175,000 persons in the S&E labor force in 1993 had disabilities.

Women and underrepresented minorities (blacks, Hispanics, and American Indians) were more highly represented in the social sciences than in other disciplines in 1993 (see chart 1). Blacks were a higher percentage of social scientists (nearly 5 percent) than they were of engineers (less than 3 percent). Women were

Chart 1. Women and underrepresented minorities in the labor force, by occupational field: 1993



NOTE: Percentages represent the fraction of women and underrepresented minorities within each of the fields.

SOURCE: NSF/SRS. *Women, Minorities, and Persons with Disabilities in Science and Engineering: 1996*, NSF 96-311.

Electronic Dissemination

SRS data are available through the World Wide Web (http://www.nsf.gov/sbe/srs/stats.htm) For NSF's Telephonic Device for the Deaf, dial 703-306-0090. If you are a user of electronic mail and have access to the internet, you may order publications electronically. Send requests to pubs@nsf.gov. In your request, include the NSF publication number and title, your name, and a complete mailing address.

[1] The term "minority" refers to all groups other than white. "underrepresented minorities" includes three groups whose representation in science and engineering is less than their representation in the population: blacks, Hispanics, and American Indians.

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almost 50 percent of the social scientists and less than 8 percent of the engineers.

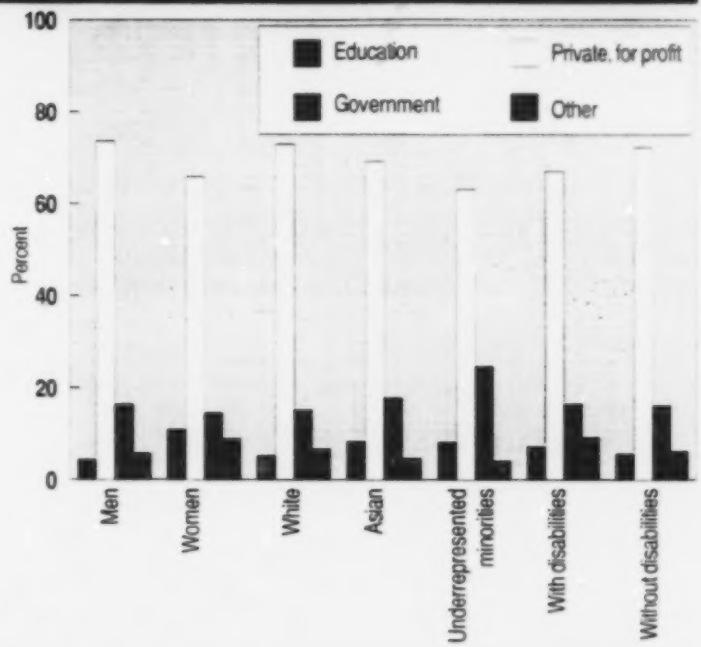
Bachelor's employment by sector

The private for profit sector employed over two-thirds of scientists and engineers who held bachelor's degrees in 1993. Underrepresented minorities were least likely to be employed in a private for profit company with 62 percent reporting employment in that sector (see chart 2). More than 70 percent of white and 69 percent of Asian bachelor's S&Es were employed in private for profit companies.

Underrepresented minorities holding bachelor's degrees in S&E, particularly blacks, were most likely to be employed in government.

The government sector was the second largest employer of bachelor's degree scientists and engineers. Women with S&E bachelor's degrees were less likely to be employed by the government than were men or racial/ethnic minority groups in 1993 (see chart 2). Less than 15 percent of the women scientists and engineers holding bachelor's degrees were employed in the government sector.

Chart 2. Employed bachelor scientists and engineers, by employment sector, sex, race ethnicity, and disability status: 1993



NOTE: "Other" includes private not-for-profit, self-employed, and other.

SOURCE: NSF/SRS. *Women, Minorities, and Persons with Disabilities in Science and Engineering: 1996.* NSF 96-311.

Underrepresented minorities holding bachelor's degrees in S&E, particularly blacks, were the most likely of any group to be employed in government. Among bachelor's degree S&Es, nearly 25 percent of underrepresented minorities as a group, and 27 percent of blacks, were employed in government. Nearly the same percentage of bachelor's scientists

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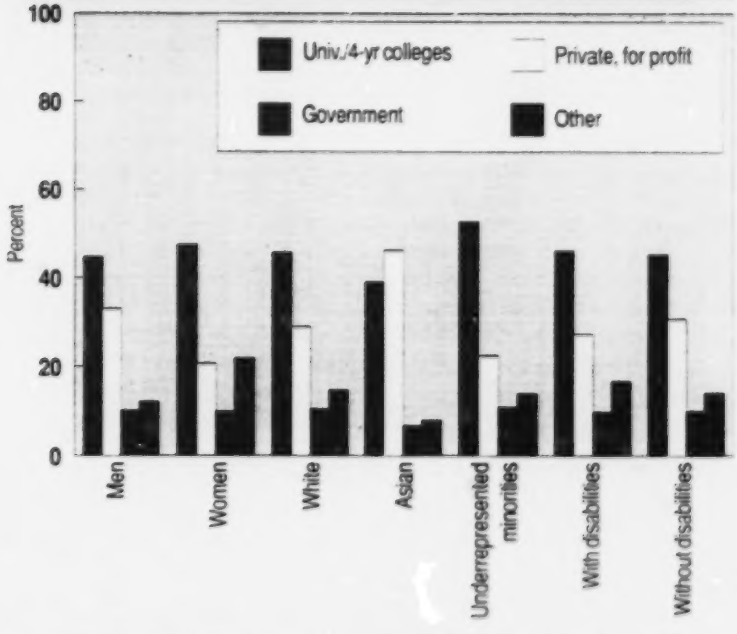
and engineers with disabilities as those without disabilities (about 16 percent) were employed by the government.

Doctoral employment by sector

Representation of women and underrepresented minorities in universities and 4-year colleges, the largest employer of doctoral scientists and engineers, contrasted with their profile in the private for profit sector. Higher percentages of doctoral S&E women and underrepresented minorities were employed in universities or 4-year colleges than any other demographic group in 1993. Almost half (48 percent) of women and nearly 55 percent of black doctoral scientists and engineers, but less than 40 percent of Asian doctoral scientists or engineers were employed in universities or 4-year colleges.

Asian doctoral scientists and engineers are more likely to be employed in the private for profit sector than all other groups. The percentage of Asians employed in that sector, the second largest employer of all doctoral scientists and engineers, was higher than for any other group at 46 percent in 1993 (see chart 3). Women and underrepresented minorities were least

Chart 3. Employed doctoral scientists and engineers, by employment sector, sex, race ethnicity, and disability status: 1993



NOTE: "Other" includes private not-for-profit, other educational institutions, self-employed, and other.

SOURCE: NSF/SRS. *Women, Minorities, and Persons with Disabilities in Science and Engineering: 1996.* NSF 96-311.

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likely to be employed in the private for profit sector. A little over 20 percent of women and 22 percent of underrepresented minorities were employed in private for profit companies.

Computer/math scientists and engineers are generally more likely to be employed in the private for profit sector than are other scientists. Nearly 46 percent of all Asian doctoral scientists or engineers were in computer/math science or engineering fields, a higher percentage than any other group, accounting for their high percentage in private for profit companies. Less than 13 percent of doctoral S&E women and approximately 17 percent of doctoral S&E underrepresented minorities were computer/math scientists or engineers. Although doctoral S&Es with disabilities were slightly more likely to be computer/math scientists or engineers than persons without disabilities, they were less likely than those without disabilities to be employed in private for profit companies.

More detailed data on these issues are in the soon to be released report ***Women, Minorities, and Persons with Disabilities in Science and Engineering: 1996,*** NSF 96-311.

This Data Brief was prepared by Abiola Davis:

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